



Market Bulletin

Bob Odom, Commissioner

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January 19, 2006

Innovation

Mill offers new markets for an old crop

By Sam Irwin

IF RONNIE GOODWIN IS RIGHT, DELTA SOYBEAN FARMERS MAY SOON SEE AN INCREASED DEMAND FOR THEIR CROP WHILE CATTLE AND DAIRY FARMERS WILL NOTICE THEIR HERDS FATTENING UP QUICKLY WITH LESS FEED.

Goodwin, a former small row crop farmer, is the trumpeting force behind Ferriday OilSeed, a new soybean mill or meal plant recently opened in the Ferriday Industrial Park.

The big difference between Ferriday OilSeed and other feed mill operators?

Their milling process is an all-natural formula that uses nary a chemical to extract the valuable soy oil and grind the tiny soybean

into a super-nutritional cattle, swine, poultry and equine food product.

The only by-product created from this new-to-Louisiana process is the creation of more niche markets for the incredible, edible soybean.

Goodwin had resigned himself to the life of a welder after farming became unprofitable in Tensas Parish when a friend asked him to be a driving buddy on a there-and-

back trip to Des Moines, Iowa, in 1999. The friend was researching Midwestern milling equipment to manufacture rice oil for a southwestern Louisiana client.

"I figured I'd just sit back in the meeting, take a nap and drive back," Goodwin said. "Then they started talking about soybeans and the farmer and this type of processing equipment.

"It got my interest up and I began taking notes."

During the following six months Goodwin's research revealed a number of encouraging potentials for Louisiana farmers. Among the positives was the higher oil content in the pulverized soybean meal. That means a quicker and cheaper weight gain for livestock. Another plus is the emergence of the bio-diesel fuel market.

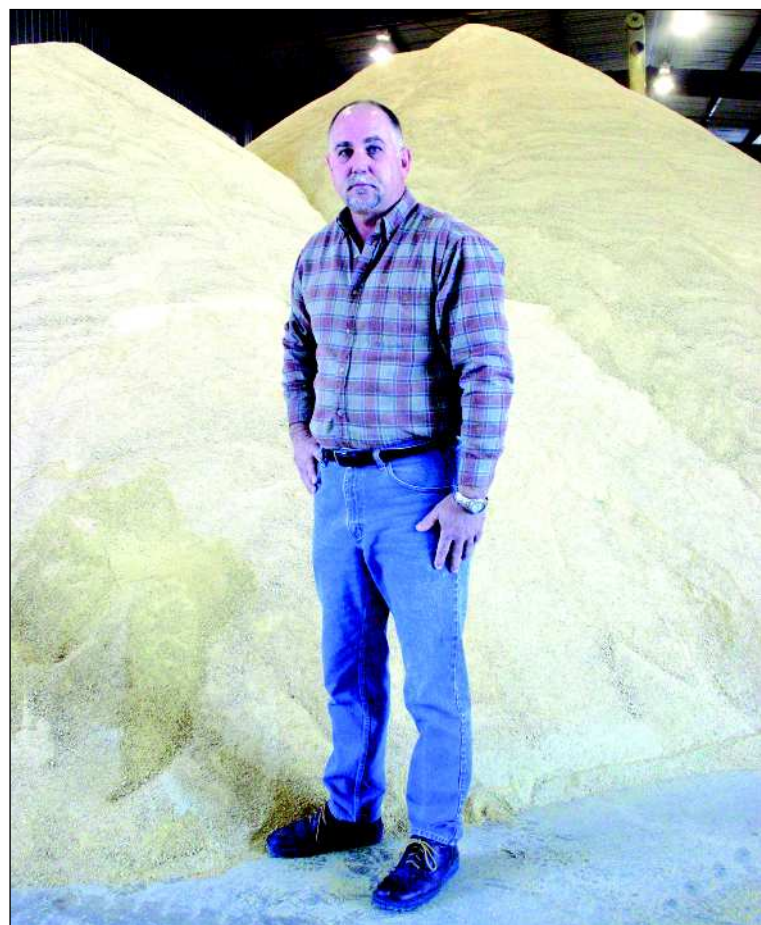
Goodwin tried to interest bankers in his dream, but found he wasn't "financially big enough to do it myself."

Enter Gary Thornton, a Baton Rouge commercial building contractor. Originally from Winnsboro, Thornton said he had no farming background and joked that the only thing he was useful for at the plant was "going to the bank once a month."

But Thornton's business standing helped the fledgling Ferriday OilSeed project become a reality for Goodwin, himself and other partners.

Like any good businessman, Thornton educated himself on the milling process and is convinced their meal and oil are good, multi-marketable products.

"We make two products. Our soybean meal, certified through the Louisiana Department of Agriculture and Forestry, has a crude protein content of not less



Gary Thornton stands in front of valuable soybean meal product at Ferriday OilSeed.

than 44 percent," Thornton said. "The other product we produce is the oil which we mainly sell to the biodiesel market."

The larger market is the feed industry, Goodwin and Thornton agreed.

The math is simple. A bushel of soybeans produces 11 pounds of oil and 46 pounds of meal and the plant is capable of crushing 3,000 bushels a day. The plant can accommodate three additional milling lines as well.

The difficult part of the equation is marketing. The Ferriday OilSeed meal product is more expensive than solvent-extracted soy meal.

"Our meal is a great product, but the key to success is educating the consumer," Goodwin said. "They've got to understand they're not buying a solvent-extracted soybean meal. They're

buying the Cadillac of soybean meal. You can't compare the two types of soybean meal because ours is so much better. It's an all-natural product. There are no chemicals involved. The soybean meal is more digestible. The proteins, vitamins, minerals and everything in it is more accessible to be digested."

'The key to success is educating the consumer. They've got to understand they're not buying a solvent-extracted soybean meal. They're buying the Cadillac of soybean meal.'

Ronnie Goodwin, partner Ferriday OilSeed

The Ferriday OilSeed milling process is very simple. Soybean grain is purchased from local grain elevators. Impurities are blown out and otherwise removed. An auger moves the soybean into a grinder hammer

mill which cracks the bean into four pieces. The cracked bean goes through an extruding mill which pulverizes the beans through pressure and mechanical friction.

The friction heats the beans to a

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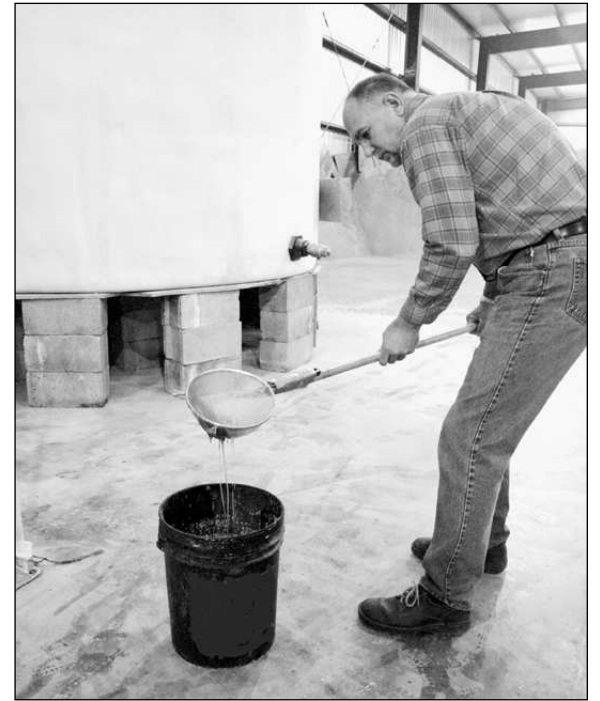




Thornton holds caked soybean taken from a pressing device at the Ferriday mill (above).



After it cakes during the oil extraction, the meal is re-milled into a powder and used as a cattle dietary supplement (above). Soybean oil is extracted from the bean and drips into a filter (below). The meal retains five percent oil saturation and can help cattle and other livestock gain weight faster.



Thornton spoons excess soybean oil from a catch bucket. Ferriday OilSeed expects to sell more than a million gallons of soybean oil to the emerging biodiesel market.

Ferriday Oilseed, *continued from page 1*

sterilizing 310 degrees and kills any dangerous aflatoxins. The process squeezes the pure oil from the bean. The oil is piped to holding vats while the remaining caked meal, which still retains about 5 percent oil fat, is allowed to cool before it is further pulverized into the smooth powdery meal favored by cattlemen.

The meal's retained oil fat is a top selling point of the Ferriday OilSeed product.

"We leave the oil in our meal which gives it an added value," Thornton said. "That's what the end user wants. That's what the ranchers want."

And Thornton freely admits his meal product costs more than the solvent meal produced by other companies.

"Our meal costs \$30-40 more than solvent meal, but ours still has oil in it which gives it energy value and makes it more digestible. That's a big value to the dairy and beef guy. If you take how much oil is in the meal, you can back off the rationing to your cattle. Some beef and dairy farmers have even backed off their feed mix

because of the nutritional value of our feed ingredient. If you run the numbers that way, we're actually cheaper than the solvent. The cattle gain faster with the oil meal."

Thornton and Goodwin believe their meal plant has the potential to renew interest in other farm businesses, like dairy and cattle farming, in the Concordia area where cotton is still king.

"I think the location in Ferriday is also going to promote a lot of feed pens for cattle," Thornton speculated. "A lot will come back and look for land to run a feed operation."

"The freight to send feed to the dairy farming Florida parishes is getting so ridiculous they can hardly afford it, and they're land locked. I absolutely believe the feed mill will attract that kind of business

because there will be a constant feed source and the land is available."

Factor in the emergence of the biodiesel market and Ferriday OilSeed becomes a "win-win for rural America," Thornton said.

"Potentially, the biodiesel market is a very big market," Thornton said. "It's in its infancy."

Five biodiesel plants will be coming online in 2006 that will purchase the Ferriday soybean oil, and Congress has mandated that fuel

producers must remove sulfur pollutants from diesel soon. Biodiesel is the logical choice to replace the sulfur.

Also, federal government subsidies to biodiesel producers make the product more cost competitive with petrol prices. Tractor and auto manufacturers are beginning to

warranty their engines for biodiesel use.

Soybean oil can be used in the production of biodiesel and will create an increased demand for soybeans, Thornton said. Additionally, the marine market is demanding B-100 biodiesel (fuel made completely with organic substances) to power offshore machinery with biodegradable fuel.

"If you have a spill offshore with B-100 you don't have to call the EPA," Thornton said. "You don't have to have a clean up so there's a lot of interest in burning B-100 fuel."

All of this from the humble soybean, which Thornton calls a miracle product.

"The bio-fuel market is here to stay," he said. "It's friendly to the farmer, the backbone of the United States. The farmer is struggling to get two cents more a bushel for his beans. This is an avenue that's a win for the consumer and a win for the producer."

For more information on Ferriday OilSeed, visit www.ferridayoilseed.com or call (318) 757-7903.



Ronnie Goodwin and Gary Thornton



Pure soybean oil is squeezed from the soybean and will be marketed primarily to new biodiesel plants set to open in the Miss-Lou area in early 2006. A niche market for the oil is an equine dietary component that promotes coat and joint health.



One ton sacks of soybean mill await delivery to area cattle farmers. Cattle nutritionists can recommend the correct amount of soybean meal to add to cattle feed for optimum results.

Filhiol Mound, continued from page 12



Archaeologist Troy Martin admires the wrought iron fence surrounding the European cemetery atop the Filhiol Mound. Jones said the Indian mound most likely would have been plowed down if it had not been for the cemetery protecting it.

because of this mound that Jones knows there was an Indian settlement nearby.

"Whenever you have a mound, it usually indicates settled activity and occupation. That's what we have here," Jones said.

Jones and his crew worked more than 12 weeks last summer excavating the site to preserve the state's cultural resources under the auspices of the State Department of Transportation and Development's Transportation Infrastructure Model for Economic Development (TIMED) program.

The TIMED agenda not only enabled Jones and company to recover and analyze thousands of precious Indian artifacts, but planned for wetlands and regional hydrology studies, allowed for the realignment of power lines and other public utilities, the removal of old underground gas tanks, and any other environmental concerns needing to be addressed well ahead of the highway's actual 2007 construction date.

But the state did not always take such care to protect Indian mounds and other cultural resources so painstakingly.

"It wasn't that long ago if you were building a highway and you came across an unmarked cemetery, the bones were just thrown to the side," Jones said. "And the mounds at Jonesville, some of the biggest mounds in the U.S. back in the 1930s, were just bulldozed down and used as a ramp for the Black River bridge (on U.S. 84)."

So how is an archeological dig conducted?

Most of it involves toiling away in the hot sun removing hundreds of pounds of hard Louisiana earth with nothing more than garden trowels. But before the hand digging can begin, a map of the area is planned. SURA is only commissioned to search for cultural resources in the small patch of Indian settlement lying in the corridor of the highway.

Jones looks longingly at the patch of land between the highway and the historic Ouachita River that won't be excavated. He wonders what kind

of cultural treasures could be found there.

"The majority of the people would have lived closer to the river water supply," Jones said. "The river is now 100 meters away, but rivers change course over 800 years. We're probably looking at the very fringe of the prehistoric village."

Specialists from the University of Mississippi plotted the historical strip and surveyed it with a special sensing tool called a gradiometer. The gradiometer can detect anomalies in the earth that may indicate charcoal and other organic substances.

Circular dots on the gradiometer's printout may profile the location of an aboriginal waddle and daub thatched roof house. Another black blur could possibly be a burn pit hearth.

A backhoe indelicately removes the plow zone earth from the grid. The plow zone is disturbed land that

has been plowed over by decades of farming. Once the plow zone has been scraped away, the archaeology team can begin the meticulous search for darkened soil, flicks of stone tools and shards of pottery.

Dark soil might indicate a fire pit or the location of a structure post. SURA archaeologist Troy Martin uses a less scientific check, the pin flag test, to help determine if a discolored patch of soil is in fact the location of a wooden post hole.

"Stick the pin flag (a thin metal wire rod with a piece of flagging attached) in the ground where you think you have a post hole," Martin explained. "Once you break the crust it just really drops down in there. That might indicate a hole that has filled in because the soil is a lot looser there."

After several weeks of scraping the hard earth with small hand tools, the dig becomes filled with pin flags, orange netting, rectangular trenches and precisely-cut holes in the earth. A semi-circular pattern of holes is believed to be the location of the aforementioned waddle and daub hut. To the untrained eye, it's not much to see, just a bunch of holes in the ground. But to the archeological team, it's so much more.

Jones said once the precise locations of the post holes, fire pits and other points of interest are identified they will be photographed. Martin explained that the posts would have had a tapered end and the bottom of the hole would reflect that. Then the holes will actually be bisected and photographed. Soil discoloration around the bisected hole will allow the scientists to determine if a pointed post was actually inserted into the hole. If charcoal was present, tests can be run to determine the wood's age and species.

Excavated material is taken back to SURA's Baton Rouge lab where flotation tests are performed. Organic material will rise to the top when floated and further tests can be

run to learn about the Indian's diet and so forth.

A lingering question that remained unanswered for weeks was the location of the barrow pit for the raw material used in the construction of the mound.

Jones thought the barrow pit was probably silted over, and might have been used as a tribal trashpile. When the barrow pit was finally located, his speculation was correct. It was the village landfill.

Like extremely nosy paparazzi, archaeologists like to dig in the ancient people's trash to find out information about them.

Jones was elated and the 12 week project was extended.

"We found thousands of pieces of pottery," Jones said. "The barrow pit was filled with broken pottery and carcasses. While there were no museum quality pieces, it was still exciting. The pit wasn't deep because they were using primitive digging sticks, but we were able to excavate it with a lot of precision."

From their discoveries, the SURA team confirmed that the pre-historic Indian village dated back to 1300 A.D. The many "people on the land-

scape" were traveling to find stone because many pointed projectile and sharpened stone tools were found at the Filhiol Mound.

"There is no stone in the area," Jones said. "They were procuring the stone from somewhere else."

But even more analysis of the material is needed and it won't be completed until weeks after the actual field work. A final report will be written and presented to the Division of Archaeology and the excavations will be curated at that office.

No pre-historic human remains were found during the project. If they had they would have been treated with the identified and proper tribal rituals.

"They would bury them with the ceremonies they have for these people and this is a good thing," Jones said. "It's better than being plowed over with a bulldozer to the side. None of us would want our grandmother's grave to be disturbed."

If you think you have a cultural resource on your property and wish to learn more, call the Louisiana Division of Archaeology at (225) 342-8170 or visit <http://www.crt.state.la.us/archaeology/homepage/index.htm>.



To the untrained eye, dirt looks like dirt. But, to an archaeologist, the slightest discoloration in the soil can indicate wood or charcoal.

Coming Your Way

Tin Top Arena in Lecompte will host winter buckle series barrel racing/pole bending events Jan. 28, Feb. 11, and March 11 and 25.

Open, novice horse and age group classes will be offered. Exhibitions begin at 11 a.m. with competitions to follow.

For more information, call (318) 445-8907.

Louisiana Angus Association will hold a bull sale at noon Jan. 28 at LSUA in Lecompte.

One hundred Angus bulls will be available for sale.

For a free catalog, call (662) 837-4904 or visit the Web site www.americanlivestockbrokers.com.

South Louisiana Saddle Club is holding an open horse show at noon Feb. 11 at Churchill Arena in Westwego.

Events will include Western judged classes and speed. Entry fee is \$5/1 or \$20/6.

For more information, contact Dudley Hartz at (504) 436-8145 or visit www.southlouisianasaddleclub.com.

A performance tested bull sale, hosted by the Louisiana Bull Testing Association and the LSU AgCenter, will be held at noon March 4 in the show barn at Dean Lee Research Station in Alexandria.

Bulls will be performance evaluated and screened. Forty to 50 bulls of several breeds will be available.

For more information, contact Danny Coombs at (318) 473-6528 or (318) 308-3928.

High Delta Exotics offers safari park wagon tours the first Sunday of every month at 362 Pickett Lane in Delhi.

The cost is \$15 and a barbecue lunch is also served.

For more information, call 1-888-244-3319.

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Archaeology: Delta Style

Indian mounds and historic artifacts are some of rural Louisiana's hidden gems. Ask many farmers and landowners and they'll show you arrowheads and other pieces of history they discovered neatly tucked away in the fertile earth of the Mississippi River Delta. With help from recent state regulations, archaeologists are preserving the state's treasured past.

By Sam Irwin

A Louisiana farmer is plowing a new field near the edge of a bayou or slough and wonders about the small hills near the old waterway. He notices pieces of white rocks churned up in the wake of the John Deere. Curious, or maybe just ready to take a break, he climbs down from his tractor and picks up one of the strange stones. It's too smooth, too flat to be a rock, and on one side there is a barely discernible geometric scratching. He applies a little pressure and the rock snaps.

Thinking it may be ancient Indian pottery the progressive farmer calls the Louisiana Division of Archaeology to investigate and is not surprised to learn the edge of his farmland was once the site of a bustling prehistoric Indian village. If the find is significant, a private archaeological consultant like Malcolm Shuman of Surveys Unlimited Research Associates (SURA) may be called to excavate the site.

Archaeologist Dennis Jones of SURA says Indian mounds are plentiful, especially in the Mississippi River Delta flood plain.

"There's no telling how many hundreds of Indian mounds are on farmland," Jones said. "Some farmers are very protective and preservation-minded and proud of having mounds on their property. Others regard them as a nuisance and have plowed them down over the years and that's unfortunate."

Jones said the mounds are our present-day link with the aborigines who lived in the area before the French Europeans settled permanently in Louisiana in 1699. There are thousands of archaeological sites along stream banks and hillsides throughout the state.

And while farmers with Indian mounds on their land are under no obligation to contact archaeological

experts, public entities, like highway departments, are governed by a different set of rules.

That's why Shuman and SURA were hired by state highway planners to excavate the Filhiol Mound site, an important archaeological scene near Bosco in Ouachita Parish. An ancient Indian village location happens to be in the path of the U.S. Highway 165 four-lane expansion.

The actual Filhiol Mound is not being excavated. It is safely out of the way of the concrete path. Instead, a 200 meter by 40 meter rectangular area believed to be the outer rim of an Indian settlement along the nearby Ouachita River has been laid out for the dig.

Jones said the Filhiol Mound has not been preserved for the last 300 years simply because it is a historic Indian mound.

"There's a European cemetery on top of this mound and that no doubt preserved it," Jones said. "Once people who owned this family plot were buried there, it certainly more or less insured that the mound would be protected and never plowed down. Granddaddy was buried there."

Archaeologists have long known of site 16-OU2 (so named because Louisiana is 16th in alphabetical order in the United States and it is the second site reported in Ouachita Parish), while most parish residents

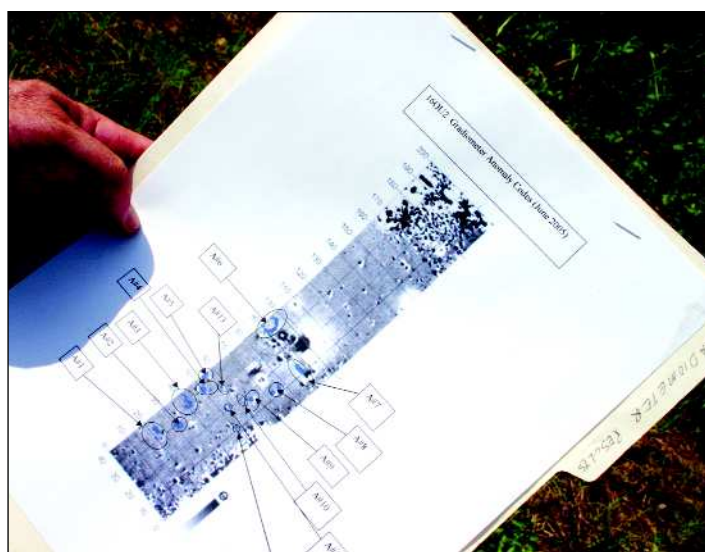


While disappointed that no museum pieces were found in the small area excavated along U.S. 165 in Ouachita Parish, thousands of pottery shards and projectiles were found by the group near the Filhiol Mound.

have largely forgotten it.

The wrought iron fencing atop the mound is camouflaged by dense weeds and tree covering. Carved lettering on the ancient tombstones is worn and nearly unreadable. Several are broken and fallen. A looter's trench, hacked into the side of the mound, exposed a cow bone buried within and nothing more. But it's

See Filhiol Mound, page 10



The dark spots on the gradiometer printout reflect anomalies in the earth that could indicate ancient carbon deposits left by prehistoric Indians in Ouachita Parish (left). Archaeologist Dennis Jones uses a bricklayer's trowel to scratch at a darkened patch of soil beneath the plow zone at the Filhiol Indian Mound near Bosco (top right). Archaeologist Malcolm Shuman, director of Surveys Unlimited Research Associates, examines the work of archaeologist Nicole deLauney as she carefully outlines the post hole where an ancient Indian dwelling once stood (bottom right).